

## EAST Search History

| Ref # | Hits | Search Query | DBs   | Default Operator | Plurals | Time Stamp       |
|-------|------|--------------|---|------------------|---------|------------------|
| L1    | 3772 | 385/88       | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2006/09/13 12:13 |
| L2    | 4357 | 385/31       | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2006/09/13 12:13 |
| L3    | 3099 | 385/39       | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2006/09/13 12:13 |
| L4    | 2683 | 385/92       | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2006/09/13 12:13 |
| L5    | 986  | 385/94       | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2006/09/13 12:13 |
| L6    | 1139 | 385/47       | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2006/09/13 12:13 |
| L7    | 394  | 372/29.02    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2006/09/13 12:13 |
| L8    | 1211 | 372/33       | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2006/09/13 12:13 |
| L9    | 2319 | 257/98       | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2006/09/13 12:13 |
| L10   | 3315 | 385/15       | USPAT   | OR               | ON      | 2006/09/13 12:13 |
| L11   | 2795 | 385/39       | USPAT   | OR               | ON      | 2006/09/13 12:13 |

## EAST Search History

|     |       |  |   |    |    |                  |
|-----|-------|--|---|----|----|------------------|
| L12 | 14126 | L1 or L2 or L3 or L4 or L5 or L6 or L7 or L8 or L9 or L10 or L11   | USPAT   | OR | ON | 2006/09/13 12:13 |
| L13 | 31    | (((Transceiv\$4 NEAR5 Receiv\$4) or ((LED or LD or laser or emit\$3) NEAR5 (PD or detector or receiv\$4)) or transceiver/receiver) SAME ((wavelength or frequency or channel) NEAR9 (different or second or another or plurality or many or (more adj than) or (at adj least)))) WITH (lens or focus\$3 or collimat\$3)) SAME (fiber or fibre or waveguide)        | USPAT   | OR | ON | 2006/09/13 12:13 |
| L14 | 76    | (((Transceiv\$4 NEAR5 Receiv\$4) or ((LED or LD or laser or emit\$3) NEAR5 (PD or detector or receiv\$4)) or transceiver/receiver) SAME ((wavelength or frequency or channel) NEAR9 (different or second or another or plurality or many or (more adj than) or (at adj least)))) WITH (lens or focus\$3 or collimat\$3)) SAME (fiber or fibre or waveguide)        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/09/13 12:21 |
| L15 | 11    | ((((Transceiv\$4 NEAR5 Receiv\$4) or ((LED or LD or laser or emit\$3) NEAR5 (PD or detector or receiv\$4)) or transceiver/receiver) SAME ((wavelength or frequency or channel) NEAR9 (different or second or another or plurality or many or (more adj than) or (at adj least)))) WITH (lens or focus\$3 or collimat\$3)) SAME (fiber or fibre or waveguide)).clm. | US-PGPUB  | OR | ON | 2006/09/13 12:22 |
| S1  | 2     | hauffe-ralf.in.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT             | OR | ON | 2005/11/13 18:07 |
| S2  | 12    | Kilian-arnd.in.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT             | OR | ON | 2005/11/13 18:07 |
| S3  | 12    | S1 or S2   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT             | OR | ON | 2005/11/13 18:17 |

## EAST Search History

|    |      |  |   |    |    |                  |
|----|------|--|---|----|----|------------------|
| S4 | 198  | ("5398170" "5761229" "5771254"<br>"5584296" "5809050" "6249370"<br>"5218223" "5418631" "5956854"<br>"6022124" "6122833" "6216352"<br>"6216352" "6238060" "4365864"<br>"4580871" "4597349" "5698847"<br>"5764223" "5774609" "5838715"<br>"5925867" "5944405" "6037964"<br>"6108497" "4518259" "4831276"<br>"4914437" "5301043" "5606537"<br>"5711588" "5719663" "6002458"<br>"6088376" "6160769" "6172745"<br>"6239916" "6243148" "6243509"<br>"4256403" "4262995" "4364102"<br>"4453200" "4530566" "4632543"<br>"4766470" "4775217" "4902244"<br>"4935939" "4975752").pn.<br>("5019808" "5247506" "5258812"<br>"5285058" "5400308" "5416608"<br>"5453855" "5487058" "5724375"<br>"5871215" "5883913" "5918108"<br>"5944416" "5963349" "5997570"<br>"6016203" "6042234" "6044871"<br>"6075649" "6081638" "6094252"<br>"6144781" "6185161" "6198213"<br>"6224223" "6224223" "4244045"<br>"4245886" "4268112" "4277817"<br>"4310905" "4355323" "4394661"<br>"4513087" "4580130" "4773018"<br>"4779256" "4789881" "4793679"<br>"4807166" "4847734" "4857895"<br>"4884112" "4927681" "4978187"<br>"5214457" "5221387" "5223710"<br>"5225672" "5247178").pn. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/11/13 18:37 |
| S5 | 3353 | 385/88   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/11/13 18:37 |
| S6 | 3899 | 385/31   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/11/13 18:37 |
| S7 | 2741 | 385/39   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/11/13 18:37 |

## EAST Search History

|     |       |  |   |    |    |                  |
|-----|-------|--|---|----|----|------------------|
| S8  | 2365  | 385/92   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/11/13 18:37 |
| S9  | 894   | 385/94   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/11/13 18:37 |
| S10 | 1037  | 385/47   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/11/13 18:37 |
| S11 | 329   | 372/29.02  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/11/13 18:37 |
| S12 | 1155  | 372/33   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/11/13 18:38 |
| S13 | 1914  | 257/98   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2005/11/13 18:38 |
| S14 | 24    | ("20030113076"   "20040066570"  <br>"4966430"   "5454055"   "5650640"<br>  "5696862"   "5745625"  <br>"5814870"   "5930430"   "6019523"<br>  "6088501"   "6130448"  <br>"6155724"   "6213650"   "6257772"<br>  "6264377"   "6318908"  <br>"6422766"   "6435734"   "6485197"<br>  "6550983"   "6611001"  <br>"6623178"   "6623180").PN. OR<br>("6856717").URPN. | US-PGPUB;<br>USPAT;<br>USOCR                          | OR | ON | 2005/11/13 18:45 |
| S15 | 0     | ("2005/0180698").URPN.   | USPAT   | OR | ON | 2005/11/13 19:29 |
| S16 | 2919  | 385/15   | USPAT   | OR | ON | 2005/11/13 19:30 |
| S17 | 2437  | 385/39   | USPAT   | OR | ON | 2005/11/13 19:30 |
| S18 | 12391 | S5 or S6 or S7 or S8 or S9 or S10 or<br>S11 or S12 or S13 or S16 or S17  | USPAT   | OR | ON | 2005/11/13 19:42 |

## EAST Search History

|     |       |  |   |    |    |                  |
|-----|-------|--|---|----|----|------------------|
| S19 | 14847 | ((VCSEL or laser or diode or PD or LD or laser-diode or photo-diode or ((energy or light) NEAR5 (emit\$6 or source))) WITH (Monit\$4 or ((light or laser) NEAR3 detector) or photo-diode or diode) WITH ((light or laser or energy or beam or ray) NEAR4 (redirect\$3 or direct\$3 or reflect\$4))) SAME (Module or transmit\$4 or receiv\$4 or can)   | USPAT   | OR | ON | 2005/11/13 19:42 |
| S20 | 9589  | ((VCSEL or laser or diode or PD or LD or laser-diode or photo-diode or ((energy or light) NEAR5 (emit\$6 or source))) WITH (Monit\$4 or ((light or laser) NEAR3 detector) or photo-diode or diode) WITH ((light or laser or energy or beam or ray) NEAR4 (redirect\$3 or direct\$3 or reflect\$4))) WITH (Module or transmit\$4 or receiv\$4 or can)   | USPAT   | OR | ON | 2005/11/13 19:52 |
| S21 | 504   | S20 and S18  | USPAT   | OR | ON | 2005/11/13 19:43 |
| S22 | 5852  | (((VCSEL or laser or diode or PD or LD or laser-diode or photo-diode or ((energy or light) NEAR5 (emit\$6 or source))) WITH (Monit\$4 or ((light or laser) NEAR3 detector) or photo-diode or diode) WITH ((light or laser or energy or beam or ray) NEAR4 (redirect\$3 or direct\$3 or reflect\$4))) WITH (Module or transmit\$4 or receiv\$4 or can)) WITH (transparent or transmi\$5 or ("not" adj opaque) or transpicious or diaphanous or ((light or beam) NEAR3 (pass or transmit\$5))) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/11/13 19:57 |
| S23 | 8     | ("20040234270" "5737348" "5997185" "6069905").PN.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/02/13 04:18 |
| S24 | 205   | S22 and S18  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/11/13 19:57 |

## EAST Search History

|     |     |  |  |    |    |                  |
|-----|-----|--|--|----|----|------------------|
| S25 | 26  | (US-20020039474-\$ or US-20030113076-\$ or US-20040037519-\$ or US-20040066570-\$ or US-20040101259-\$ or US-20040105647-\$ or US-20040190836-\$ or US-20040234270-\$ or US-20050093667-\$ or US-20050180698-\$ or US-20050241135-\$).did. or (US-5737348-\$ or US-5997185-\$ or US-6069905-\$ or US-6550983-\$ or US-6611001-\$ or US-6623178-\$ or US-6623180-\$ or US-6678454-\$ or US-6786654-\$ or US-6856717-\$). did. or (JP-2002098850-\$).did. or (DE-19601955-\$ or US-5737348-\$ or US-6069905-\$ or JP-2004294513-\$).did. | US-PGPUB;<br>USPAT;<br>JPO;<br>DERWENT | OR | ON | 2006/02/13 05:55 |
| S26 | 0   | ("2004/0234270").URPN.   | USPAT                                  | OR | ON | 2006/02/13 05:36 |
| S27 | 0   | ("2004/0234270").URPN.   | USPAT                                  | OR | ON | 2006/02/13 05:40 |
| S28 | 115 | Nishie-Mitsuaki.in.  | US-PGPUB;<br>USPAT;<br>JPO;<br>DERWENT | OR | ON | 2006/02/13 05:56 |
| S29 | 219 | Nakanishi-Hiromi.in.   | US-PGPUB;<br>USPAT;<br>JPO;<br>DERWENT | OR | ON | 2006/02/13 05:56 |
| S30 | 133 | Kuhara-Yoshiki.in.   | US-PGPUB;<br>USPAT;<br>JPO;<br>DERWENT | OR | ON | 2006/02/13 05:56 |
| S31 | 3   | S28 and S29 and S30  | US-PGPUB;<br>USPAT;<br>JPO;<br>DERWENT | OR | ON | 2006/02/13 05:57 |
| S32 | 398 | S28 or S29 or S30  | US-PGPUB;<br>USPAT;<br>JPO;<br>DERWENT | OR | ON | 2006/02/13 05:57 |
| S33 | 0   | ("2004/0071411").URPN.   | USPAT                                  | OR | ON | 2006/02/13 06:01 |
| S34 | 17  | ("5606572"   "5737348"   "5761229"   "5812582"   "5835514").PN. OR ("6069905").URPN.   | US-PGPUB;<br>USPAT;<br>USOCR           | OR | ON | 2006/02/13 06:02 |
| S35 | 25  | ("4732446"   "4733094"   "5093980"   "5282080"   "5416624"   "5555334"   "5696862").PN. OR ("5997185").URPN.   | US-PGPUB;<br>USPAT;<br>USOCR           | OR | ON | 2006/02/13 06:26 |

## EAST Search History

|     |       |  |   |    |    |                  |
|-----|-------|--|---|----|----|------------------|
| S36 | 21    | ("3617932"   "4351585"   "4457582"   "4549782"   "4611886").PN. OR ("4733094").URPN.   | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/02/13 06:15 |
| S37 | 1     | "20020196500".pn.  | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/02/13 06:27 |
| S38 | 0     | ("2002/0196500").URPN.   | USPAT   | OR | ON | 2006/02/13 06:27 |
| S39 | 0     | "20040101259".pn.  | USPAT   | OR | ON | 2006/02/13 06:27 |
| S40 | 2     | "20040101259".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/02/13 06:28 |
| S41 | 12271 | (laser or emit\$3 or Diode or LED) WITH (transparent or translucent or ((light or laser or energy) adj (pass\$3 or transmit\$3 or through))) WITH (reflect\$3 or mirror) | USPAT   | OR | ON | 2006/02/20 20:34 |
| S42 | 3457  | 385/88   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT             | OR | ON | 2006/02/20 20:34 |
| S43 | 4026  | 385/31   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT             | OR | ON | 2006/02/20 20:34 |
| S44 | 2834  | 385/39   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT             | OR | ON | 2006/02/20 20:34 |
| S45 | 2450  | 385/92   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT             | OR | ON | 2006/02/20 20:34 |
| S46 | 922   | 385/94   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT             | OR | ON | 2006/02/20 20:34 |
| S47 | 1070  | 385/47   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT             | OR | ON | 2006/02/20 20:34 |

## EAST Search History

|     |       |   |   |    |    |                  |
|-----|-------|---|---|----|----|------------------|
| S48 | 342   | 372/29.02   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT             | OR | ON | 2006/02/20 20:34 |
| S49 | 1163  | 372/33  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT             | OR | ON | 2006/02/20 20:34 |
| S50 | 2017  | 257/98  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT             | OR | ON | 2006/02/20 20:34 |
| S51 | 3035  | 385/15  | USPAT   | OR | ON | 2006/02/20 20:34 |
| S52 | 2530  | 385/39  | USPAT   | OR | ON | 2006/02/20 20:34 |
| S53 | 12848 | S42 or S43 or S44 or S45 or S46 or<br>S47 or S48 or S49 or S50 or S51 or<br>S52   | USPAT   | OR | ON | 2006/02/20 21:17 |
| S54 | 27201 | (laser or emit\$3 or Diode or LED)<br>WITH (transparent or translucent or<br>((light or laser or energy) adj<br>(pass\$3 or transmit\$3 or through)))<br>WITH (reflect\$3 or mirror)          | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/02/20 20:36 |
| S55 | 659   | S54 and S53   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/02/20 20:35 |
| S56 | 18901 | ((laser or emit\$3 or Diode or LED)<br>NEAR10 (transparent or translucent<br>or ((light or laser or energy) adj<br>(pass\$3 or transmit\$3 or<br>through)))) WITH (reflect\$3 or<br>mirror)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/02/20 20:36 |
| S57 | 490   | S56 and S53   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/02/20 20:36 |
| S58 | 16612 | ((laser or emit\$3 or Diode or LED)<br>NEAR10 (transparent or translucent<br>or ((light or laser or energy) adj<br>(pass\$3 or transmit\$3 or<br>through)))) NEAR10 (reflect\$3 or<br>mirror) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/02/20 20:37 |



## EAST Search History

|     |       |  |   |    |    |                  |
|-----|-------|--|---|----|----|------------------|
| S59 | 7780  | ((laser or emit\$3 or Diode or LED) NEAR5 (transparent or translucent or ((light or laser or energy) adj (pass\$3 or transmit\$3 or through)))) NEAR5 (reflect\$3 or mirror)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/02/20 20:37 |
| S60 | 195   | S59 and S53  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/02/20 20:37 |
| S61 | 24    | ("20030113076"   "20040066570"   "4966430"   "5454055"   "5650640"   "5696862"   "5745625"   "5814870"   "5930430"   "6019523"   "6088501"   "6130448"   "6155724"   "6213650"   "6257772"   "6264377"   "6318908"   "6422766"   "6435734"   "6485197"   "6550983"   "6611001"   "6623178"   "6623180").PN. OR ("6856717").URPN. | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/02/20 21:15 |
| S62 | 0     | Nishle-mitsuaki.in.  | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/02/20 21:16 |
| S63 | 22    | Nishie-mitsuaki.in.  | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/02/20 21:19 |
| S64 | 86    | nakanishi-hiromi.in.   | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/02/20 21:16 |
| S65 | 133   | kuhara-yoshiki.in.   | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/02/20 21:17 |
| S66 | 105   | S62 or S63 or S64  | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/02/20 21:17 |
| S67 | 150   | 398/141  | USPAT   | OR | ON | 2006/02/20 21:26 |
| S68 | 12951 | S67 or S53   | USPAT   | OR | ON | 2006/02/20 21:17 |
| S69 | 31    | S68 and S66  | USPAT   | OR | ON | 2006/02/20 21:18 |
| S70 | 118   | Nishie-mitsuaki.in.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/02/20 21:19 |

## EAST Search History

|     |       |                      |   |    |    |                  |
|-----|-------|----------------------|---|----|----|------------------|
| S71 | 245   | nakanishi-hiromi.in. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/02/20 21:19 |
| S72 | 157   | kuhara-yoshiki.in.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/02/20 21:20 |
| S73 | 438   | S70 or S71 or S72    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/02/20 21:20 |
| S74 | 199   | 398/141              | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/02/20 21:27 |
| S75 | 13000 | S53 or S74           | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/02/20 21:27 |
| S76 | 51    | S75 and S73          | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/02/20 21:46 |
| S77 | 2     | "20020180698".pn.    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/02/20 21:48 |
| S78 | 2     | "20050180698".pn.    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/02/20 22:35 |

## EAST Search History

|     |   |                     |   |    |    |                  |
|-----|---|---------------------|---|----|----|------------------|
| S79 | 2 | "20020196500".pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/02/20 22:35 |
| S80 | 0 | S79 and hermtica\$5 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/02/20 22:36 |

## EAST Search History

|                     |  |   |  |    |    |                  |
|---------------------|--|---|--|----|----|------------------|
| S81                 | 156  | (US-20040066570-\$ or<br>US-20030113076-\$ or<br>US-20040071411-\$ or<br>US-20040101259-\$ or<br>US-20040105647-\$ or<br>US-20040190836-\$ or<br>US-20050180698-\$ or<br>US-20050241135-\$ or<br>US-20040234270-\$ or<br>US-20030235376-\$ or<br>US-20020196500-\$ or<br>US-20050093667-\$ or<br>US-20020039474-\$ or<br>US-20040037519-\$).did. or<br>(US-6963598-\$ or US-6888169-\$ or<br>US-6856635-\$ or US-6697396-\$ or<br>US-6654125-\$ or US-6630994-\$ or<br>US-6624899-\$ or US-6600845-\$ or<br>US-5696862-\$ or US-6611001-\$ or<br>US-6550983-\$ or US-6623180-\$ or<br>US-6867796-\$ or US-6867377-\$ or<br>US-6863453-\$ or US-6366350-\$ or<br>US-6314223-\$ or US-5555334-\$ or<br>US-5282080-\$ or US-5093980-\$ or<br>US-4733094-\$ or US-4732446-\$ or<br>US-6971804-\$ or US-6873799-\$ or<br>US-6830711-\$ or US-6731882-\$).<br>did. or (US-6525386-\$ or<br>US-6163556-\$ or US-6102294-\$ or<br>US-5910663-\$ or US-5438208-\$ or<br>US-5319182-\$ or US-5140152-\$ or<br>US-4893901-\$ or US-4611886-\$ or<br>US-4549782-\$ or US-4457582-\$ or<br>US-3617932-\$ or US-6452669-\$ or<br>US-6339496-\$ or US-5835514-\$ or<br>US-5606572-\$ or US-6966706-\$ or<br>US-6963683-\$ or US-6905260-\$ or<br>US-4351585-\$ or US-6694074-\$ or<br>US-6591043-\$ or US-6069905-\$ or<br>US-5737348-\$ or US-6406195-\$ or<br>US-6404959-\$ or US-5997185-\$).<br>did. or (US-6863444-\$ or<br>US-6845118-\$ or US-6567435-\$ or<br>US-6814501-\$ or US-6799902-\$ or<br>US-5812582-\$ or US-6952507-\$ or<br>US-6588945-\$ or US-5416624-\$ or<br>US-5761229-\$ or US-6678454-\$ or<br>US-6786654-\$ or US-5771254-\$ or<br>US-5809050-\$ or US-6856717-\$ or<br>US-6623178-\$ or US-6998691-\$ or<br>US-6998281-\$ or US-6987613-\$ or<br>US-6973110-\$ or US-6960035-\$ or<br>US-6969946-\$ or US-6952437-\$ or<br>US-6948840-\$ or US-6946684-\$ or<br>US-6945711-\$ or US-6904209-\$).<br>did. or (US-6878971-\$ or<br>US-6881980-\$ or US-6894785-\$ or<br>US-6903379-\$ or US-6904068-\$ or<br>US-68318908-\$ or US-6835973-\$ or | US-PGPUB;<br>USPAT;<br>JPO;<br>DERWENT | OR | ON | 2006/02/20 23:35 |
| 9/13/06 12:28:05 PM | C:\Documents and Settings\judges1\My Documents\EAST\Workspaces\Workspaces\10806689.wsp |   |  |    |    | Page 12          |

## EAST Search History

|     |      |                   |   |    |    |                  |
|-----|------|-------------------|---|----|----|------------------|
| S82 | 113  | S81 and lens      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2006/02/20 23:38 |
| S83 | 1    | "20050244095".pn. | US-PGPUB;<br>USPAT                                    | OR | ON | 2006/03/16 05:22 |
| S84 | 1    | "20050249462".pn. | US-PGPUB;<br>USPAT                                    | OR | ON | 2006/03/16 05:24 |
| S85 | 1    | "20050244548".pn. | US-PGPUB;<br>USPAT                                    | OR | ON | 2006/03/16 05:26 |
| S86 | 1    | "20050002611".pn. | US-PGPUB;<br>USPAT                                    | OR | ON | 2006/03/16 05:26 |
| S87 | 0    | "20040234270".pn. | USPAT   | OR | ON | 2006/03/16 06:22 |
| S88 | 1    | "20040234270".pn. | US-PGPUB;<br>USPAT                                    | OR | ON | 2006/03/16 06:28 |
| S89 | 1    | ("5841562").PN.   | US-PGPUB;<br>USPAT                                    | OR | ON | 2006/03/16 06:28 |
| S90 | 3498 | 385/88            | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2006/03/16 06:32 |
| S91 | 4069 | 385/31            | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2006/03/16 06:32 |
| S92 | 2868 | 385/39            | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2006/03/16 06:32 |
| S93 | 2473 | 385/92            | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2006/03/16 06:32 |
| S94 | 930  | 385/94            | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2006/03/16 06:32 |
| S95 | 1082 | 385/47            | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2006/03/16 06:32 |

## EAST Search History

|          |       |  |   |    |    |                  |
|----------|-------|--|---|----|----|------------------|
| S96      | 346   | 372/29.02  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2006/03/16 06:32 |
| S97      | 1174  | 372/33   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2006/03/16 06:32 |
| S98      | 2059  | 257/98   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2006/03/16 06:32 |
| S99      | 3066  | 385/15   | USPAT   | OR | ON | 2006/03/16 06:32 |
| S10<br>0 | 2564  | 385/39   | USPAT   | OR | ON | 2006/03/16 06:32 |
| S10<br>1 | 13014 | S90 or S91 or S92 or S93 or S94 or<br>S95 or S96 or S97 or S98 or S99 or<br>S100 | USPAT   | OR | ON | 2006/03/16 06:32 |

## EAST Search History

|                     |  |   |  |    |         |                  |
|---------------------|--|---|--|----|---------|------------------|
| S10<br>2            | 157  | (US-20030235376-\$ or<br>US-20050180698-\$ or<br>US-20040190836-\$ or<br>US-20020039474-\$ or<br>US-20050093667-\$ or<br>US-20040101259-\$ or<br>US-20040037519-\$ or<br>US-20040105647-\$ or<br>US-20050241135-\$ or<br>US-20050249462-\$ or<br>US-20030113076-\$ or<br>US-20040066570-\$ or<br>US-20020196500-\$ or<br>US-20040234270-\$ or<br>US-20040071411-\$).did. or<br>(US-6318908-\$ or US-6452669-\$ or<br>US-6339496-\$ or US-5835514-\$ or<br>US-6694074-\$ or US-6591043-\$ or<br>US-6588945-\$ or US-6863444-\$ or<br>US-4744615-\$ or US-6630994-\$ or<br>US-6624899-\$ or US-6600845-\$ or<br>US-4856012-\$ or US-6856717-\$ or<br>US-6786654-\$ or US-5696862-\$ or<br>US-5997185-\$ or US-5737348-\$ or<br>US-6963598-\$ or US-6856635-\$ or<br>US-6845118-\$ or US-6697396-\$ or<br>US-6623180-\$ or US-6623178-\$ or<br>US-6867796-\$ or US-6611001-\$).<br>did. or (US-6550983-\$ or<br>US-6867377-\$ or US-6863453-\$ or<br>US-5606572-\$ or US-6966706-\$ or<br>US-6963683-\$ or US-6952507-\$ or<br>US-6905260-\$ or US-6873799-\$ or<br>US-6525386-\$ or US-6102294-\$ or<br>US-4351585-\$ or US-3617932-\$ or<br>US-6404959-\$ or US-5555334-\$ or<br>US-5416624-\$ or US-5093980-\$ or<br>US-4732446-\$ or US-6971804-\$ or<br>US-5438208-\$ or US-5319182-\$ or<br>US-4893901-\$ or US-4611886-\$ or<br>US-6406195-\$ or US-6366350-\$ or<br>US-6314223-\$ or US-6069905-\$).<br>did. or (US-5282080-\$ or<br>US-4733094-\$ or US-6830711-\$ or<br>US-6888169-\$ or US-6731882-\$ or<br>US-6654125-\$ or US-5910663-\$ or<br>US-6567435-\$ or US-4549782-\$ or<br>US-5812582-\$ or US-6799902-\$ or<br>US-6163556-\$ or US-5140152-\$ or<br>US-4457582-\$ or US-5809050-\$ or<br>US-5771254-\$ or US-5761229-\$ or<br>US-6678454-\$ or US-6998691-\$ or<br>US-6998281-\$ or US-6987613-\$ or<br>US-6973110-\$ or US-6894785-\$ or<br>US-6881980-\$ or US-6835923-\$ or<br>US-6822985-\$ or US-6819690-\$).<br>did. or (US-6803603-\$ or<br>US-6792012-\$ or US-6684007-\$ or<br>US-6493171-\$ or US-6480331-\$ or | US-PGPUB;<br>USPAT;<br>JPO;<br>DERWENT | OR | ON      | 2006/03/16 06:35 |
| 9/13/06 12:28:05 PM | C:\Documents and Settings\jhuughes1\My Documents\EAST\Workspaces\Workspaces\10806689.wsp |   |  |    | Page 15 |                  |

## EAST Search History

|          |       |   |   |    |    |                  |
|----------|-------|---|---|----|----|------------------|
| S10<br>3 | 118   | nishie-mitsuaki.in.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT             | OR | ON | 2006/03/16 06:35 |
| S10<br>4 | 248   | nakanishi-hiromi.in.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT             | OR | ON | 2006/03/16 06:36 |
| S10<br>5 | 158   | kuhara-yoshiki.in.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT             | OR | ON | 2006/03/16 06:36 |
| S10<br>6 | 441   | S103 or S104 or S105  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT             | OR | ON | 2006/03/16 06:36 |
| S10<br>7 | 48    | S106 and S101   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT             | OR | ON | 2006/03/16 06:36 |
| S10<br>8 | 12859 | ((Transceiv\$4 NEAR5 Receiv\$4) or<br>((LED or LD or laser or emit\$3)<br>NEAR5 (PD or detector or receiv\$4))<br>or transceiver/receiver) SAME<br>((wavelength or frequency or<br>channel) NEAR9 (different or second<br>or another or plurality or many or<br>(more adj than) or (at adj least)))                                       | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/03/16 07:49 |
| S10<br>9 | 4196  | ((Transceiv\$4 NEAR5 Receiv\$4) or<br>((LED or LD or laser or emit\$3)<br>NEAR5 (PD or detector or receiv\$4))<br>or transceiver/receiver) SAME<br>((wavelength or frequency or<br>channel) NEAR9 (different or second<br>or another or plurality or many or<br>(more adj than) or (at adj least))))<br>AND (fiber or fibre or waveguide) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/03/16 07:49 |
| S11<br>0 | 3498  | 385/88  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT             | OR | ON | 2006/03/16 07:51 |



## EAST Search History

|          |       |  |   |    |    |                  |
|----------|-------|--|---|----|----|------------------|
| S11<br>1 | 4069  | 385/31   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2006/03/16 07:51 |
| S11<br>2 | 2868  | 385/39   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2006/03/16 07:51 |
| S11<br>3 | 2473  | 385/92   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2006/03/16 07:51 |
| S11<br>4 | 930   | 385/94   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2006/03/16 07:51 |
| S11<br>5 | 1082  | 385/47   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2006/03/16 07:51 |
| S11<br>6 | 346   | 372/29.02  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2006/03/16 07:51 |
| S11<br>7 | 1174  | 372/33   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2006/03/16 07:51 |
| S11<br>8 | 2059  | 257/98   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2006/03/16 07:51 |
| S11<br>9 | 3066  | 385/15   | USPAT   | OR | ON | 2006/03/16 07:51 |
| S12<br>0 | 2564  | 385/39   | USPAT   | OR | ON | 2006/03/16 07:51 |
| S12<br>1 | 13014 | S110 or S111 or S112 or S113 or<br>S114 or S115 or S116 or S117 or<br>S118 or S119 or S120 | USPAT   | OR | ON | 2006/03/16 07:51 |

## EAST Search History

|          |     |  |   |    |    |                  |
|----------|-----|--|---|----|----|------------------|
| S12<br>2 | 603 | ((Transceiv\$4 NEAR5 Receiv\$4) or ((LED or LD or laser or emit\$3) NEAR5 (PD or detector or receiv\$4)) or transceiver/receiver) SAME ((wavelength or frequency or channel) NEAR9 (different or second or another or plurality or many or (more adj than) or (at adj least)))) SAME (lens or focus\$3 or collimat\$3)                                     | USPAT   | OR | ON | 2006/03/16 08:02 |
| S12<br>3 | 121 | ((Transceiv\$4 NEAR5 Receiv\$4) or ((LED or LD or laser or emit\$3) NEAR5 (PD or detector or receiv\$4)) or transceiver/receiver) SAME ((wavelength or frequency or channel) NEAR9 (different or second or another or plurality or many or (more adj than) or (at adj least)))) SAME (lens or focus\$3 or collimat\$3)) SAME (fiber or fibre or waveguide) | USPAT   | OR | ON | 2006/03/16 08:02 |
| S12<br>4 | 25  | ((Transceiv\$4 NEAR5 Receiv\$4) or ((LED or LD or laser or emit\$3) NEAR5 (PD or detector or receiv\$4)) or transceiver/receiver) SAME ((wavelength or frequency or channel) NEAR9 (different or second or another or plurality or many or (more adj than) or (at adj least)))) WITH (lens or focus\$3 or collimat\$3)) SAME (fiber or fibre or waveguide) | USPAT   | OR | ON | 2006/03/16 08:03 |
| S12<br>5 | 26  | S123 and S121  | USPAT   | OR | ON | 2006/03/16 08:03 |
| S12<br>6 | 256 | ((Transceiv\$4 NEAR5 Receiv\$4) or ((LED or LD or laser or emit\$3) NEAR5 (PD or detector or receiv\$4)) or transceiver/receiver) SAME ((wavelength or frequency or channel) NEAR9 (different or second or another or plurality or many or (more adj than) or (at adj least)))) SAME (lens or focus\$3 or collimat\$3)) SAME (fiber or fibre or waveguide) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/03/16 08:03 |

## EAST Search History

|          |      |   |   |    |    |                  |
|----------|------|---|---|----|----|------------------|
| S12<br>7 | 1214 | (((Transceiv\$4 NEAR5 Receiv\$4) or ((LED or LD or laser or emit\$3) NEAR5 (PD or detector or receiv\$4)) or transceiver/receiver) SAME ((wavelength or frequency or channel) NEAR9 (different or second or another or plurality or many or (more adj than) or (at adj least)))) SAME (lens or focus\$3 or collimat\$3)                                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/03/16 08:02 |
| S12<br>8 | 67   | (((Transceiv\$4 NEAR5 Receiv\$4) or ((LED or LD or laser or emit\$3) NEAR5 (PD or detector or receiv\$4)) or transceiver/receiver) SAME ((wavelength or frequency or channel) NEAR9 (different or second or another or plurality or many or (more adj than) or (at adj least)))) WITH (lens or focus\$3 or collimat\$3)) SAME (fiber or fibre or waveguide) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/03/16 08:03 |
| S12<br>9 | 26   | S123 and S121   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/03/16 12:43 |
| S13<br>0 | 0    | "6939058" and amp\$6  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/03/16 12:43 |